

ICT Update

a current awareness bulletin for ACP agriculture



GenARDIS award-winning projects 2003

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Bridging the gender divide in ICTs

The eradication of poverty is at the heart of the Cotonou Agreement, signed in June 2000 between the European Union and the ACP Group of States. It is also the first of the eight Millennium Development Goals, which all 191 UN Member States have pledged to meet by 2015.

But who are the poor? Approximately three-quarters of the world's 1.2 billion extremely poor people live in rural areas, and at least half of them are women. Poverty is not gender-neutral. Women face greater constraints than men in gaining access to, and control of, land, credit, education, health services and technology. Interventions aimed at poverty reduction must therefore take into account gender relations – the socially constructed relations between women and men in a particular society. The Millennium Development Goals recognize that empowering women to enhance their educational and economic status and reduce their vulnerability to disease, hunger and disasters are key factors in the eradication of poverty.

Information and communication technologies (ICTs), which encompass a broad range of tools that facilitate communication and the processing and transmission of information by electronic means, have undergone rapid changes over the last few decades. They have enabled the advent of the 'information society', in which more information is available than ever before. However, access to this enormous body of information, and to the technologies that facilitate communication and information transfer, is by no means equitable. The term 'digital divide' has been coined to describe the situation in which some members of society or areas of the world are left behind by those who have access to ICTs. Digital divides have emerged between countries of the North and of the South and, because of connectivity constraints, between urban and rural areas. In addition, there is a gender divide in ICTs, reflecting a bias that is especially strong in the rural areas of developing countries. Women are further away from digital opportunities than men. They also tend to be less well educated, less mobile and have less control over material resources than men, and so are often unable to seek out and access the information they need.

In recognition of the availability of a potentially powerful set of tools – ICTs – and their failure to benefit the majority of the poor in ACP countries – rural women – in September 2002 CTA organized the first expert consultation on 'Gender and Agriculture in the Information Society'. Out of this consultation grew the awareness that little was known about successful applications of ICTs by and for women in agriculture and rural development in ACP countries. Together with two partner institutions, the International Institute for Communication and Development (IICD) and the International Development Research Centre (IDRC), CTA announced a small grants fund known as GenARDIS, to support innovative activities that will contribute to the understanding and application of ICTs by and for rural women. The response to the first call for project proposals for nine grants of €5000 each was overwhelming – more than 360 submissions were received in less than two months, a clear indication of the interest in the topic.

This special issue of *ICT Update* contains reports on the winning projects selected by an international jury in the first

round of GenARDIS. The nine projects have been implemented, and they are now sharing their results and experiences. CTA and its partners hope that these reports will increase awareness among policy makers and donors of the importance of gender in ICT-enabled livelihoods projects, and provide new insights into and examples of good practice to guide future initiatives. We hope that this is not the end of the process, and look forward to continuing our collaboration. ■

Gesa Wesseler, CTA

Laurent Elder, IDRC

Judith Veldhuizen, IICD

The International Institute for Communication and Development (IICD) is an independent non-profit foundation, established by the Netherlands Directorate-General for Development Cooperation in 1997. IICD assists developing countries to realize locally owned sustainable development by harnessing the potential of ICTs.

The International Development Research Centre (IDRC) is a Canadian public corporation that works in close collaboration with researchers from the developing world in their search for the means to build healthier, more equitable, and more prosperous societies. GenARDIS is supported by IDRC's Acacia Initiative, a programme to empower sub-Saharan communities with the ability to apply ICTs to their own social and economic development.

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Farmwise

Bessie Nyirenda describes how a database system, an online input calculator, and email are helping women farmers in Malawi to improve production.

Rural village women farmers can take advantage of technological advances to improve the production potential of their agricultural land. We may not have yet reached the stage where a computer is present in every rural village, but those who do have access to ICTs can certainly leverage the advantages they offer for the benefit of those who do not, using radio and print media.

This is precisely what the Farmwise project set out to do in the rural village of Mwandama in Zomba district, Malawi. With the GenARDIS award, the project developed a computer database system with a web interface and email facility to help women farmers to determine what they can expect to harvest from their land, which crops they can grow given the soil type and fertility, and what inputs they should use.

The project collected information about the women and their land as inputs for the database. The staff received training in using the system and agricultural extension workers were present to advise the women on the amount and type of seeds and fertilizers they would need, and when to plant, fertilize and weed. The most vulnerable members of the community received free inputs, and brochures were available for all to take home.

In principle, the database could be accessed using the web interface on the Internet. During implementation, however, it was decided not to connect the database (in order to protect the privacy of farmers) and put on the web only a farm input calculator. Requests for advice from farmers were passed on by email to the advisers in the agricultural extension office.

Email was also used to communicate with Radio 1, a station of the Malawi Broadcasting Corporation, popularly known as 'Farmers Radio'. Since most farmers in the village listen to this radio station, it was natural that the project should use it to publicize the Farmwise project. The station's programme presenters used the online input calculator to answer questions from farmers about the types and amounts of



inputs they required, and taught farmers with Internet access how to use it. The women were given alerts of the radio programmes to listen to and the times they were being aired.

The women farmers of Mwandama have, on average, 0.2 hectares of land. In the past, when they planted local maize varieties using seed selected from the previous season or bought from local markets, and without using fertilizers, they were able to produce four or five 50-kg bags of maize. As a result of the project, their productivity has more than doubled, and they are now producing about 10–15 bags of maize each.

None of the women are yet contemplating selling their produce – they are happy just to have enough for their families to eat. In the words of one of the women, 'This year we will not be lining up in queues to receive free maize, we are liberated from the food crisis circle'. ■

Bessie Nyirenda (email farmwise@clcom.net) is managing director of Computerland Limited, an Internet service provider in Malawi. For further information, visit www.clcom.net.

Radio for rural women

Grâce Agouna describes how radio helps women to improve their lives.

Audy Magazine, a monthly magazine for women in Chad, worked with two local NGOs, the Centre d'Etude, de Formation et d'Appui aux Initiatives de Développement (CEFAID) and the community radio station of the Bureau d'Etudes et de Liaison des Activités Caritatives de Développement (BELACD) to help women's associations in the province of East Logone organize and facilitate radio listening groups.

In the first phase of the project, more than 60 women, representing 18 women's associations, were trained as facilitators. These associations are active in various fields, including supporting women entrepreneurs, setting up mutual aid, savings and credit schemes, and carrying out community work and literacy campaigns. During the training, the participants discussed many issues, such as the role of women in society, women and agriculture, opportunities for the development of women, and the need to encourage women entrepreneurs.

All of these issues were discussed in a spirit of change. The women openly discussed their lives and the many challenges they face, in particular their exclusion from decision making and the heavy burden of working in the fields. Journalists from the BELACD radio station attended the training sessions to record the discussions.

In the second phase, the project helped the newly trained facilitators to set up listening groups for the members of their associations. Thanks to the GenARDIS grant, Audy Magazine was able to provide each group with a radio, enabling them to listen to the recorded discussions, which were broadcast three times week. After each broadcast, the facilitators encouraged the group members to reflect on the discussions and to suggest new topics for discussion.

As women are often prevented from using the radio at home by their husbands, the listening groups offer many of them an unprecedented opportunity to listen to the radio and to discuss issues that are important to their lives. ■

Grâce Agouna (email: amagchad@yahoo.fr) is publishing director of Audy Magazine.

Access to information

Akello Zerupa explains how she has helped women to use radio cassettes.

In eastern Uganda, most rural households depend on subsistence agriculture, and much of the work is done by women. Yet, few women have access to relevant information that could help them to improve their agricultural production. Akello Zerupa of Makerere University set up a project to address this problem. The project first set out to identify the constraints on women's access to media such as radio, the most important source of agricultural information in the region.

One major finding was that three-quarters of the women did not know how to operate a radio. It was also found that in households that possess a radio, the men consider it their exclusive property, restricting its use by other household members, including women.

The poor economic status of women was also found to be a hindrance. Most of the women were involved in some income-generating activity, such as growing and selling vegetables or brewing beer. However, some of them had to share the little money they earned with their husbands, and they usually spent the rest on basic household needs such as salt, food, and clothes for the children. As a result, they were unable to save enough money to buy their own radio.

The project acquired 40 radio cassette players and distributed them to 40 women groups in Tororo district. The women were taught how to operate the equipment and how to tune in to radio programmes that provide useful agricultural information. The project also distributed audio tapes with recordings of programmes on nutrition and agricultural production methods.

The project also showed the women several videos demonstrating various agricultural activities, including compost making and vegetable growing. For some of the women it was the first time they had watched a video, and they were excited to see what other farmers are doing. ■

Akello Zerupa (email: aspsmuk@infocom.co.ug) is a part-time lecturer at Makerere University, Uganda.

The health and agriculture radio network

James Onyango describes how radios, mobile phones and video are helping women from HIV/AIDS affected households to exchange information.

AIDS remains a major problem in Kenya, and it is often women and girls who bear the brunt of the pandemic. They have no rights to own property such as land, and are physiologically at greater risk of catching HIV/AIDS. They are generally less well educated and only a handful are employed, and so are socio-economically more vulnerable to HIV/AIDS. Many women also suffer from malnutrition.

To help address these problems, the Kenya AIDS Intervention Prevention Project Group (KAIPPG) has established community-based informal learning centres, called nutritional field schools, in six of its 28 project sites in western Kenya. Each field school caters for 30 participants, giving priority to orphans, widows, low-income women and older vulnerable children from HIV/AIDS affected households. The participants are taught about nutrition, and receive training in relevant skills and techniques to enable them to care for people living with AIDS, to maximize crop yields and, generally, to become economically and socially empowered.

Using the GenARDIS grant, KAIPPG organized a health and agriculture community radio network for women who had completed the training. The participants were organized into six radio listening groups, and were trained in the use of audio and video recording equipment to enable them to exchange information such as on farming techniques, and to raise public awareness about HIV/AIDS. The groups

were also trained in photography and the use of drama and traditional oral storytelling as tools for learning, education and development.

A radio cassette player and a mobile phone were distributed to each of the groups, and the participants were encouraged to communicate with national FM radio stations – to respond to programmes, obtain information, and share their experiences with a wider audience.

Each group prepared and recorded on tape a presentation, song, poem, role-play or story on a relevant topic of their choice. One women's group, for example, performed a play about farming and the preparation of nutritious food for people living with HIV/AIDS. Another group sang traditional songs on planting, harvesting and the preparation of sweet potatoes.

The tapes were then exchanged among the groups so that each group was able to learn about the work of the others. Each group also set up an information kiosk stocked with the tapes they had produced and other information. KAIPPG hopes to translate the tapes into English and French, and to release the content also on diskettes and CD-ROM. ■

James Onyango (email: kaippg@africaonline.co.ke) is executive director of KAIPPG, an NGO that works with rural communities in Kenya to address the problem of HIV/AIDS using an holistic approach. For more information, visit www.kaippg.org.



ICT training for women entrepreneurs

Nidhi Tandon reports on a regional ICT training workshop for Caribbean women engaged in organic farming.

As in many other regions of the world, Caribbean women play a vital if under-recognized and unsupported role in food production. They are less likely to have access to land, extension training, affordable credit and loans than men, yet studies indicate that they make up to 65% of agricultural production and 80% of marketing decisions.

There is a growing market for organic products, and an increasing number of Caribbean women are becoming interested in organic farming methods. Organic farming is highly knowledge-intensive, however, and women farmers often lack the means to learn more about appropriate production methods. While opportunities exist to tap into local and even regional markets, women farmers tend to be isolated from market information, and are not producing to organic export standards. A number of women farmers would like to make this leap but lack the opportunities to do so.

To overcome these challenges, Networked Intelligence for Development (NID), an NGO based in Toronto, Canada, in collaboration with the Jamaica Organic Agriculture Movement (JOAM), organized a workshop for Caribbean women engaged in organic farming. The aim was to help them take advantage of the Internet as a means to access and exchange information about organic farming methods, promote their business, and market their produce.

Held in March 2004 in Jamaica, the workshop attracted 47 women from all over the region, 28 of whom ran their own farming businesses. The workshop started with a basic training course on the use of the Internet, service providers and email services, and concluded with a session on e-commerce and online payment transactions.

A Yahoo account was set up for everyone, including those who already had an email address, so they too learned how to set up an account. The participants also learned how to use search engines, how to download software from the web, and how to create a web page. They also learned



why a web presence is important, and how to go about getting web design services. The course also included an exploration of the kinds of organic farming information and networks that already exist on the Internet, and training in how to set up and participate in an online user group.

All of the women who registered for the workshop completed the course, which included a field trip to three organic farms, and expert presentations on marketing and financing. On the last day, at a brainstorming session, the participants suggested establishing a regional network of women organic farmers. Since all 47 participants now had an email address to exchange, the end of the workshop marked the very beginning of the network. ■

Nidhi Tandon is principal and trainer for Networked Intelligence for Development (NID). The ICT Training workshop was organized by Dorianne Rowan-Campbell, a consultant and trainer for NID, Jamaica, who is also an organic coffee farmer. For more information, visit www.networkedintelligence.com.

Natural resources

Joana Francis Adda describes the use of video for planning.

The area around the village of Naga, in Kassena Nankana district in northern Ghana is well endowed with rich forests and other natural resources. However, the area is becoming increasingly susceptible to drought, soil erosion and annual bush fires, all of which threaten to undermine the livelihoods of its inhabitants.

To prevent further environmental degradation, Participatory Community Development (PACODEV), a women-led NGO based in Ghana, launched a project to help women in the Naga area devise community plans for the management of natural resources.

In November 2003, PACODEV provided training for 25 women from five villages to act as facilitators to guide the planning process. Subsequently, a total of 120 women from these villages formed community planning groups.

Throughout the project, video camcorders were used as training tools, and to record examples of environmental degradation. The women were also able to use the recordings in the planning sessions to identify problem areas, such as soil erosion and forest clearance, where community action was needed.

To complement the video recordings, the women were encouraged to draw pictures of their environment. These drawings helped to widen the discussions in the planning groups about environmental problems. Since 95% of the women are illiterate, the use of videos and drawings rather than written texts enabled them to participate fully in the training and planning sessions, and make their voices heard in their own language.

The resulting community plans prepared by the women's groups included measures to prevent bush fires and to exploit natural resources in more sustainable ways. They also proposed planting trees to prevent further soil erosion as well as to provide fruits, fodder for animals and fuelwood for domestic use. ■

Joana Francis Adda (pacodev@yahoo.com) is the Country Director of Participatory Community Development (PACODEV), Ghana.

Identifying ICT needs

Pantaleon N. Shoki reports on a study of ICTs for rural development.

The Agency for Cooperation and Research in Development (ACORD) conducted a study to identify community-based ICT needs in Karagwe district, Tanzania. The study involved a survey of four groups of 10 respondents each, including community members, representatives of the private sector and civil society organizations (CSOs), and government officials at both district and local levels.

The study confirmed that the Karagwe district has a rather limited ICT infrastructure. According to the respondents, the most accessible ICT services were the telephone (26%), newsletters (20%), the Internet (20%) and radio (13%). When asked specifically about ICTs used in agriculture or for rural development most respondents said they were unaware of any. The study found that most CSOs working in rural development are unable to provide ICT services to community members because they do not have the funds to do so. However, it also found that the private sector is willing to collaborate with CSOs and community members to establish agricultural market information centres.

All of the participants in the study agreed that ICTs were important for agricultural and rural development. However, when asked to specify which ICTs they needed most, the responses diverged. CSO staff and government officials most often mentioned access to and training in Internet services, whereas community members were more likely to specify community radio, telephone connections and newsletters containing agricultural information.

The study recommends that rural communities in the Karagwe district should be provided with Internet connectivity, preferably through wireless systems, in order to reach communities that are not connected to the national power grid or telephone network. ■

Pantaleon N. Shoki (email: shokip@hotmail.com) is a policy researcher at the Agency for Cooperation and Research in Development (ACORD), Mwanza, Tanzania.

The communication of agricultural information

Joseph Kiplang'at reports on a study of the availability of agricultural information among rural women in South Africa's KwaZulu-Natal province.

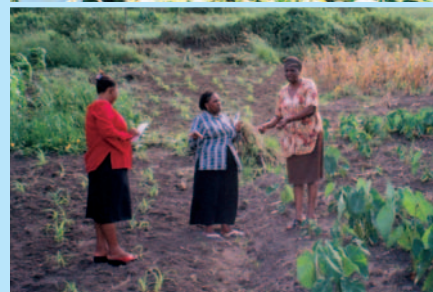
Although the South African government has formulated policies to facilitate the provision of agricultural information to rural communities, the implementation of these policies has so far not been effective. This is partly due to the deficient telecommunication infrastructure in rural areas, and partly to the lack of capacity and skills development among rural communities. More importantly, however, the policies do not adequately address the specific needs of rural women.

These were the conclusions of a study carried out under the auspices of the Department of Library and Information Science of the University of Zululand among rural women in the communities of Mkwanazi and Melmoth in KwaZulu-Natal province, South Africa. The purpose of the study was to investigate the diffusion of ICTs used to communicate agricultural information.

The majority of women in Mkwanazi and Melmoth are not formally employed and rely heavily on subsistence farming. Although the physical infrastructure in Mkwanazi is better than that in Melmoth, in both communities there are areas that lack electricity and telecommunication facilities.

The study found that radio was the most accessible medium used by rural women to obtain agricultural information, followed by television and cellphone, while the least accessible were the Internet, email, mobile cinema, video and film shows. This contrasted with the perception of the extension workers and researchers who said that they frequently used video and film shows to disseminate agricultural information to rural women.

Among women in Mkwanazi and Melmoth the most popular radio programme is 'Cobela Kufalaza', which is broadcast in Zulu daily between 4:30 and 5:00 in the morning. Although this programme does provide agricultural information, most of the women said that the content of the programme ought to be revised to make it more relevant to their day-to-day farming activities. For instance, they suggested



that the programme should include information on soil fertility and agricultural inputs such as fertilizers and seeds, give advice on farming techniques such as compost making, and provide market information.

Consequently, apart from the necessary improvement of the telecommunication infrastructure and rural electrification, the study recommends that extension workers, agricultural researchers and policy makers collaborate more closely with rural communities, particularly women, to make sure that the content of radio and television programmes is more relevant to their needs. ■

Joseph Kiplang'at (email: jknetich@yahoo.co.uk) is a researcher at the Department of Library and Information Science, University of Zululand, South Africa. The study was carried out with the help of research assistants Rose Ngwane and Jiyane Veli.

Internet for civil servants

Alice Kouboura Djinadou Igue describes a project to provide computer training for women civil servants in rural areas.

At a time when the inequalities between men and women in Benin are diminishing, access to information and communication technologies (ICTs) is still rather unequal, and many information services remain inaccessible to women, especially those living and working in rural areas.

The National Institute of Agricultural Research of Benin (INRAB), through its Public Relations and Outreach Service (SRVP), used the GenARDIS grant to launch a project to strengthen the capacities of women civil servants working at six Regional Centres for Action in Rural Development (CARDERS). The project involved the organization of training programmes for these women in the use of computers and the Internet, to enable them to collect information that will be useful in their work with rural women.

INRAB contacted the managers of the six regional centres to explain the purpose of the project. Each manager then suggested six women to participate in the training. In each CARDER home town, a cybercafe was identified to serve as a training venue. These cybercafes were then invited to propose a training programme, based on specifications set by the SRVP to ensure that the six courses were comparable.

Each programme consisted of basic training in text and data processing using software such as Word and Excel,



and a comprehensive course in the use of Internet as a communication and research tool.

At the end of the course, the 36 participants were required to take a test, which all of them passed. Each of them now has an email account so that they can send and receive messages, they can search for information on the Internet, and they can prepare documents and use spreadsheets.

The participants were generally very enthusiastic about the training programmes. They recommended that a series of follow-up courses be organized to improve their skills and to enable them to keep abreast of new technological developments. ■

Alice Kouboura Djinadou Igue (email : djinadoualice@yahoo.fr) is head of the Public Relations and Outreach Service (SRVP) of National Institute of Agricultural Research of Benin (INRAB).



International jury

Jury members create a support network for GenARDIS.

Reviewing the 360 submissions to the GenARDIS small grants fund, and selecting the nine winners were the tasks of the six jury members:

- **Gesa Wesseler**, planning officer, CTA, The Netherlands;
- **Julie Ferguson**, programme officer, Knowledge Sharing, IICD, currently programme leader, Knowledge Sharing, Hivos, The Netherlands;
- **Ramata Thioune**, knowledge analyst, Acacia Initiative, IDRC, Canada / Senegal;
- **Helen Hambly Odame**, formerly research officer, International Service for National Agricultural Research (ISNAR), currently at the University of Guelph, Canada;
- **Aida Opoku-Mensah**, team leader, Promoting ICTs for Development, UN Economic Commission for Africa (UNECA), Ethiopia; and
- **Fackson Banda**, regional director, Panos Southern Africa, Zambia.

In addition, Lizette Michaels at the African Training and Research Centre in Administration for Development (CAFRAD) provided invaluable administrative support, from the announcement of the GenARDIS small grants fund through to receipt of the final project reports.

The selection process enabled the creation of a new international support network for work on gender and agriculture in the information society. By sharing resources and exchanging views on the submissions, the agencies were able to make more cost-effective use of their funds, and identify areas of mutual interest.

Small competitive grants are increasingly recognized as a way to make better use of scarce resources. Small grants tend to encourage creativity and provide the recipients with funds that require minimal paperwork so that they can get on with their activities. Donors are also able to share the risks associated with funding pilot projects. The partners involved in GenARDIS hope to prove that this collaboration will inspire innovation in the field of ICTs and development. ■

Q&A: Women, information access and rural development

Helen Hambly Odame argues that the provision of information to women is less important than ensuring equitable access to information.

How can women participate in and influence rural development policy in the information society?

Women must be leaders at many different levels of society. In their own homes they influence the direction and pace of rural development by educating their daughters and sons. Women stress the importance of education, and often devote most, if not all of their incomes to their children's school fees. This priority-setting among women has had a measurable impact on rural societies around the world. Governments and society in general must ensure that the efforts of ordinary women to educate their children are not in vain.

This requires that men work with women to improve their communities, and that women themselves take the lead in the community and at the national level through organization and political participation.

What kind of information services should be provided to rural women?

The provision of information to women is less important than ensuring equitable access to information. The vast majority of non-literate people are women who live in rural and remote areas of the world. Most information services do not reach rural women, and those that do are driven by an agenda that rural women have not had a hand in defining.

Both the content and the carrier of information must be accessible to women. Information in written form and unfamiliar languages is not accessible to them. Face-to-face communication through women's organizations and radio, especially through radio listening groups, are two of the most successful sources of

information for rural women.

The content needs to be addressed too. How can women be involved from the outset in assessing their information needs, and how can they exchange their own knowledge without risking the subjugation of their knowledge?

What are the most effective public information access points for women?

Culture will determine the best public access points for women in a particular society. In Kenya, for instance, health clinics, churches and women's self-help groups have historically been important information access points. In Jamaica, adult learning centres and women's business associations have been successful in responding to women's information needs. Community radio stations that broadcast specific programmes in local languages have been effective in countries such as Ghana. It is also very important that information access points are supplemented by programmes that offer learning opportunities for women, such as literacy courses, mother/child health care programmes or business support.

How can women's traditional and indigenous knowledge contribute to content development efforts?

There are many ways in which women's indigenous knowledge can contribute to efforts to develop content for information and communication programmes. One good example is the series of radio programmes in Ghana. Each month the programme focuses on a different indigenous food and discusses with women its production, processing, nutritional advantages and marketing possibilities. Another interesting example comes from India,

where the Honey Bee Network (see www.sristi.org/index.php) is compiling local farmers' innovations in an online database, ensuring to some extent the preservation of local knowledge.

There is some doubt, however, that women's participation in content development will be enough to ensure that women actually benefit. In Namibia, for instance, a new hybrid variety of millet was named after the leader of the women's group that participated in the plant breeding and who shared the local germplasm with scientists. Yet it is questionable whether this has truly 'empowered' the women. Did the women gain financially from this exchange of their indigenous know-how? Women's organizations are now arguing that they must not lose the power associated with their indigenous knowledge and risk its appropriation. This is one reason why the example of the Honey Bee Network in India will likely be championed in other parts of the world. ■

Helen Hambly Odame (email: hhambly@uoguelph.ca) has more than 13 years' experience in international R&D programmes in Africa and Latin America. She is currently assistant professor in Rural Extension Studies at the School of Environmental Design & Rural Development (SEDRD) at the University of Guelph, Canada.



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